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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,244	02/27/2004	Peter Byrne	MSFT-2944/307243.01	8978
41505 7590 06/04/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			EXAMINER ORTIZ, BELIX M	
			ART UNIT 2164	PAPER NUMBER
			MAIL DATE 06/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ED

Office Action Summary	Application No.		Applicant(s)	
	10/789,244		BYRNE, PETER	
	Examiner		Art Unit	
	Belix M. Ortiz		2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 0207.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications files on 13-April-2007. Claim 11 was cancelled and claims 1-10 and 12-17 are amended by applicant's request. Therefore, claims 1-10 and 12-17 are presently pending in the application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 7, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is the different between logical and physical elements. Because the specification and claims said that logical elements include indexes and the physical elements include B-trees; and b-trees is a type of index.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-10 and 12-17 are rejected under 35 U.S.C. 103(a) (Eff. Filing date of application: 2/27/2004) as being unpatentable over Burke (U.S. patent 6,185,663) (Eff. Filing date of application: 6/15/1998) view of Courter et al. (U.S. patent 6,119,128) (Eff. Filing date of application 3/30/1998).

As to claims 1 and 12, Burke teaches a method of generating recoverable units in a database (see abstract and column 4, lines 26-28), the method comprising:

partitioning the database into a first and a second unit (see figure 1);

creating multiple logs such that any one unit is associated with only one log (see column 2, lines 2-5; column 2, lines 14-16; and column 4, lines 17-22); and

linking the primary catalog to the secondary catalogs (see figure 1, characters 16a, 18, and 16c).

Burke does not teach creating a primary catalog comprising metadata of logical elements of the units, the primary catalog referencing the units;

creating two secondary catalogs, each secondary catalog corresponding to a respective unit and comprising metadata of physical elements for the respective unit; and

maintaining the secondary catalogs such that the first unit is recoverable independently from the second unit.

Courter et al. teaches recovering different types of objects with one pass of the log (see abstract), in which he teaches creating a primary catalog comprising metadata of logical elements of the units, the primary catalog referencing the units (see column 1, lines 64-66);

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creating two secondary catalogs, each secondary catalog corresponding to a respective unit and comprising metadata of physical elements for the respective unit (see column 1, lines 64-67 and column 2, lines 1-13);

maintaining the secondary catalogs such that the first unit is recoverable independently from the second unit (see column 4, lines 57-60).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Burke by the teaching of Courter et al., because creating a primary catalog comprising metadata of logical elements of the units, the primary catalog referencing the units;

creating two secondary catalogs, each secondary catalog corresponding to a respective unit and comprising metadata of physical elements for the respective unit;

maintaining the secondary catalogs such that the first unit is recoverable independently from the second unit, would enable the method because, “manufacture for a computer implemented recovery system for restoring a database in a computer. The database contains objects and is stored on a primary data storage device connected to the computer. Objects of different types in the database are copied from the primary data storage device to a secondary data storage device. Modifications to the objects are logged in a log file. A recovery indicator is received that indicates that recovery of the objects in the database is required”, (see abstract).

As to claims 2, 8, and 13, Burke as modified teaches wherein creating two secondary catalogs further comprises creating two secondary catalogs wherein each catalog includes a

log stream corresponding to the respective unit (see Burke, figure 1, character 11, 12, and 16).

As to claims 3, 9, and 14, Burke as modified teaches wherein linking further comprises linking the primary catalog to the secondary catalog such that a first unit is recoverable independently from the second unit while the second unit is being accessed (see Burke, figure 1; column 2, lines 57-67; and column 4, lines 49-56).

As to claims 4 and 15, Burke as modified teaches wherein creating a primary catalog comprises creating a catalog which contains metadata for at least one of the database, tables, indexes, data types, constraints, stored procedures, triggers, and file groups (see Courter et al., column 2, lines 9-13).

As to claims 5 and 16, Burke as modified teaches wherein creating two secondary catalogs comprises creating catalogs which contain metadata for at least one of pages, files, B-Trees, heaps, and log data (see Courter et al., column 1, lines 24-25).

As to claims 6, 10-11, and 17, Burke as modified teaches wherein maintaining comprises separately logging updates to the respective units in the respective secondary catalogs (see Burke, figure 1; column 2, lines 14-16; and column 3, lines 57-58).

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As to claim 7, Burke teaches a system having a database (see abstract),
the system comprising:

a processor having access to memory, the memory having instructions which, when
executed (see column 1, lines 29-40 and claim 24), perform the method comprising:

partitioning the database into a first and a second unit (see figure 1);

creating multiple logs such that any one unit is associated with only one log (see
column 2, lines 2-5; column 2, lines 14-16; and column 4, lines 17-22);

linking the primary catalog to the secondary catalogs (see figure 1, characters 16a, 18,
and 16c); and

Burke does not teach creating a primary catalog comprising metadata of logical
elements of the units, the primary catalog referencing the units;

creating two secondary catalogs, each secondary catalog corresponding to a
respective unit and comprising metadata of physical elements for the respective unit; and

maintaining the secondary catalogs such that the first unit is recoverable
independently from the second unit.

Courter et al. teaches recovering different types of objects with one pass of the log
(see abstract), in which he teaches creating a primary catalog comprising metadata of logical
elements of the units, the primary catalog referencing the units (see column 1, lines 64-66);

creating two secondary catalogs, each secondary catalog corresponding to a
respective unit and comprising metadata of physical elements for the respective unit (see
column 1, lines 64-67 and column 2, lines 1-13);

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maintaining the secondary catalogs such that the first unit is recoverable independently from the second unit (see column 4, lines 57-60).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Burke by the teaching of Courter et al., because creating a primary catalog comprising metadata of logical elements of the units, the primary catalog referencing the units;

creating two secondary catalogs, each secondary catalog corresponding to a respective unit and comprising metadata of physical elements for the respective unit;

maintaining the secondary catalogs such that the first unit is recoverable independently from the second unit, would enable the method because, “manufacture for a computer implemented recovery system for restoring a database in a computer. The database contains objects and is stored on a primary data storage device connected to the computer. Objects of different types in the database are copied from the primary data storage device to a secondary data storage device. Modifications to the objects are logged in a log file. A recovery indicator is received that indicates that recovery of the objects in the database is required”, (see abstract).

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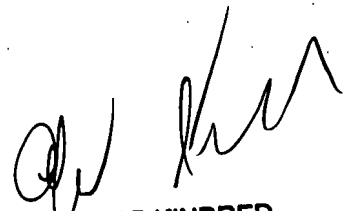
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is 571-272-4081. The examiner can normally be reached on Monday-Friday 9am-5pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bmo

May 11, 2007



ALFORD KINDRED
PRIMARY EXAMINER